

Exhibit 4

CHART FOR U.S. PATENT NO. 7,921,323 (“‘323 Patent”)

Accused Instrumentalities: HP’s products, including at least each of the following routers and router software infringe at least Claims 27-28, 31, and 33: Aruba 5400R and 2930F CX 6200, 6300M, 6300F, 6400, and 8000 (e.g., 83xx and 8400) Switch Series and ArubaOS-CX 10.00 or newer. The infringement chart below is based on the Aruba CX 8400 switch (“CX 8400”), which is exemplary of the infringement of the ‘323 Patent.

Claims	Aruba CX 8400
[27pre] A communications infrastructure, comprising	<p>To the extent the preamble is deemed limiting, CX 8400 includes a communications infrastructure.</p> <p>The 8400 provides carrier class high availability with industry-leading line rate 10GbE/25GbE/40GbE/100GbE connectivity in a compact 8 slot chassis. It provides up to 19.2 Tbps of switching capacity based on a fully resilient design that includes redundant fabric, management, power and fans to create a resilient, highly available network that is ideal for the most demanding campus core and data center networks.</p> <p>See, e.g., ARUBA CX 8400 SWITCH SERIES at p. 1 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf</p>



See, e.g., ARUBA CX 8400 SWITCH SERIES at p. 1 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf

- High performance 19.2 terabits per second switching (1.2Tbps/slot) capacity
- Carrier-class high availability with Aruba Virtual Switching Extension (VSX), redundant management, power, and fabric

See, e.g., ARUBA CX 8400 SWITCH SERIES at p. 1 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf

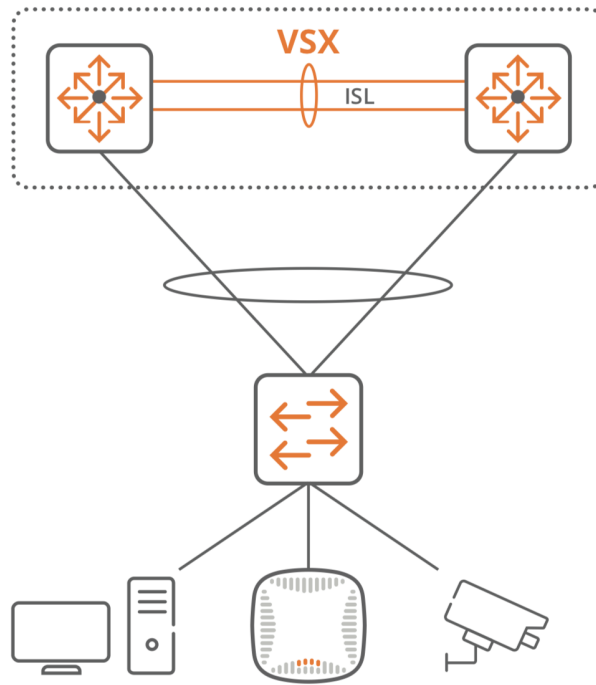


Figure 1: Aruba Virtual Switching Extension

See, e.g., High Availability From Campus to Data Center at p. 1 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf

	<p>High availability and redundancy are delivered by enabling VSX on two switches. Each switch then maintains its independent control plane, yet stays synchronized with the other for important information like MAC and ARP addresses. This enables a redundant, loop-free topology that does not require spanning tree protocol (STP). VSX is also compatible with multi-spanning tree protocol (MSTP) and rapid per-VLAN spanning tree (RPVST+), offering flexible design options for organizations using traditional spanning tree.</p> <p><i>See, e.g.,</i> High Availability From Campus to Data Center at p. 2 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf</p>
[27a] two or more separate signal processing circuits, each one of said two or more signal processing circuits including multiple ASIC	CX 8400 includes two or more separate signal processing circuits, each one of said two or more signal processing circuits including multiple ASIC devices that each itself includes a packet router.

devices that
each itself
includes a
packet router,

The 8400 provides carrier class high availability with industry-leading line rate 10GbE/25GbE/40GbE/100GbE connectivity in a compact 8 slot chassis. It provides up to 19.2 Tbps of switching capacity based on a fully resilient design that includes redundant fabric, management, power and fans to create a resilient, highly available network that is ideal for the most demanding campus core and data center networks.

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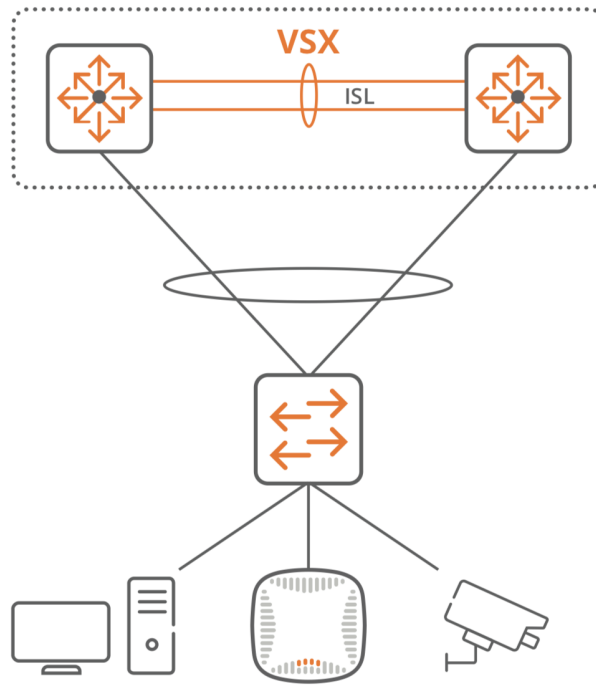
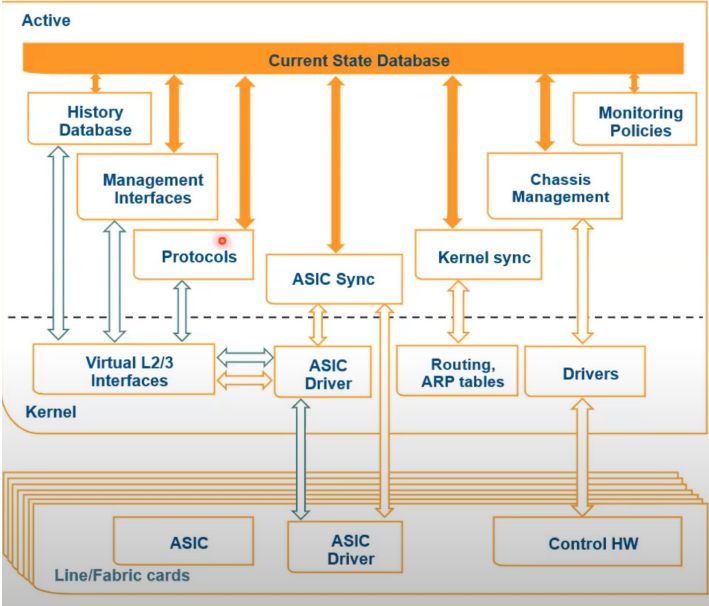


Figure 1: Aruba Virtual Switching Extension

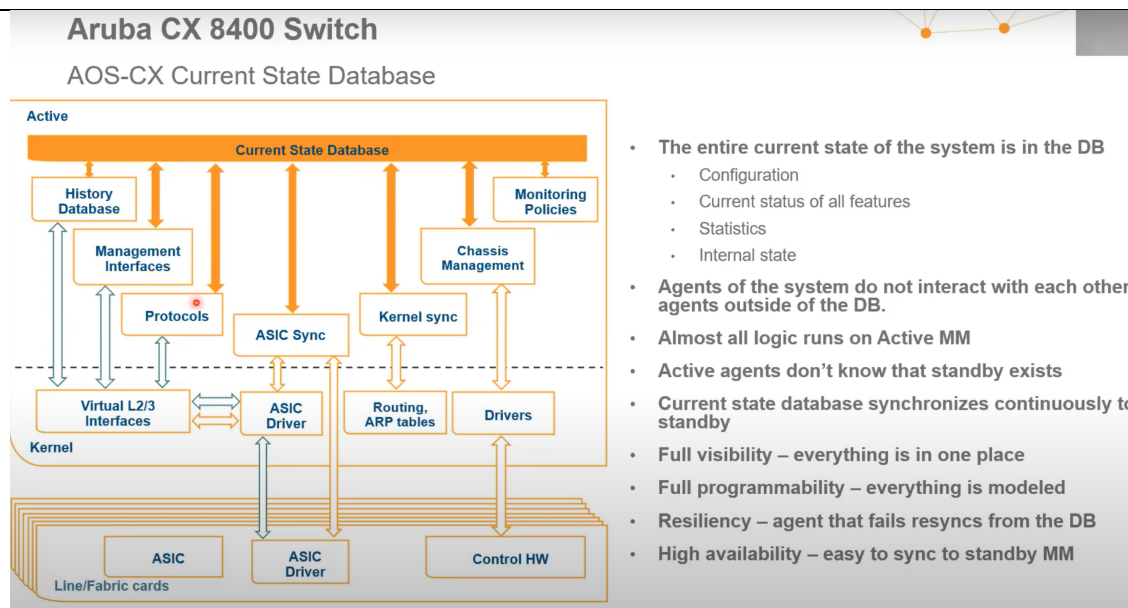
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See, e.g., High Availability From Campus to Data Center at p. 2 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf

	<p>Aruba CX 8400 Switch</p> <p>AOS-CX Current State Database</p>  <ul style="list-style-type: none"> • The entire current state of the system is in the DB <ul style="list-style-type: none"> • Configuration • Current status of all features • Statistics • Internal state • Agents of the system do not interact with each other agents outside of the DB. • Almost all logic runs on Active MM • Active agents don't know that standby exists • Current state database synchronizes continuously to standby • Full visibility – everything is in one place • Full programmability – everything is modeled • Resiliency – agent that fails resyncs from the DB • High availability – easy to sync to standby MM <p>See, e.g., https://www.youtube.com/watch?v=UF5b2o5o6RE</p>
<p>[27b] said packet router of each one of said ASIC devices of each given one of said respective two or more signal processing circuits being coupled through respective first</p>	<p>In CX 8400, the packet router of each one of said ASIC devices of each given one of said respective two or more signal processing circuits being coupled through respective first and second common interfaces.</p>

and second
common
interfaces



See, e.g., <https://www.youtube.com/watch?v=UF5b2o5o6RE>

Line modules and slots

- Supports a maximum of 256 10GbE (SFP/SFP+) or 25G (SFP/SFP+/SFP28) ports, or 64 40GbE (QSFP+) ports, or 48 ports 40/100GbE (QSFP28) combination
- Eight slots for line modules

See, e.g., ARUBA CX 8400 SWITCH SERIES at p. 6 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf

Aruba Gen7 ASIC Architecture

More innovation, performance, and efficiency

880Gbps

- 24p SFP+ 4SFP56
- 600Gbps Fabric connectivity



3.3B
Transistors

- ✓ Virtual Output Queue
- ✓ Investment Protection
- ✓ Deployable at Enterprise and Data Center
- ✓ Programmable, TCAM reallocation without a reset
- ✓ Flexible forwarding table
- ✓ High performance

2.8Tbps

- 10G/25G SFP28, 12p 40G/100G
- 2.8Tbps Fabric connectivity



10.5B
Transistors

airheads

One Operating System. One ASIC Architecture. One Operating Model

See, e.g., Aruba Campus switches: Latest enhancements at p. 4 available at

<https://community.arubanetworks.com/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=3c68a1fb-ec95-46bf-88bf-caa7a4728dc9>

	<table><tr><th></th><th>6405 Chasssis</th><th>6410 Chassis</th></tr><tr><td>Management Slots</td><td>2</td><td>2</td></tr><tr><td>Power Supply bays</td><td>4</td><td>4</td></tr><tr><td>Fan tray bays</td><td>2</td><td>4</td></tr><tr><td>Line card slots</td><td>5</td><td>10</td></tr><tr><td>Gen 7 Fabric ASICs</td><td>1</td><td>2</td></tr></table> <p>See, e.g., Aruba Campus switches: Latest enhancements at p. 18 available at https://community.arubanetworks.com/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=3c68a1fb-ec95-46bf-88bf-caa7a4728dc9</p>		6405 Chasssis	6410 Chassis	Management Slots	2	2	Power Supply bays	4	4	Fan tray bays	2	4	Line card slots	5	10	Gen 7 Fabric ASICs	1	2
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Gen 7 Fabric ASICs	1	2																	
[27c] and an intervening high speed serial optical link to a respective packet router of each of the ASIC devices of each other of said two or more signal processing circuits with no other processing device intervening between the high speed	<p>CX 8400 includes an intervening high speed serial optical link to a respective packet router of each of the ASIC devices of each other of said two or more signal processing circuits with no other processing device intervening between the high speed optical link and said ASIC devices of each of said two or more signal processing circuits.</p> <div><div></div><div><h3>Line modules and slots</h3><ul style="list-style-type: none">• Supports a maximum of 256 10GbE (SFP/SFP+) or 25G (SFP/SFP+/SFP28) ports, or 64 40GbE (QSFP+) ports, or 48 ports 40/100GbE (QSFP28) combination• Eight slots for line modules</div></div> <p>See, e.g., ARUBA CX 8400 SWITCH SERIES at p. 6 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf</p>																		

<p>optical link and said ASIC devices of each of said two or more signal processing circuits.</p>	<p>The ability of AOS-CX to maintain synchronous state across dual control planes allows a simplified carrier-class high availability solution called Aruba Virtual Switching Extension (VSX). Designed using the best features of existing high availability technologies such as Multi-chassis Link Aggregation (MC LAG), Aruba VSX enables a distributed architecture that is highly available during upgrades or control plane events. Features include:</p> <ul style="list-style-type: none">• Continuous configuration synchronization via AOS-CX• Flexible active-active network designs at Layers 2 and 3• Operational simplicity and usability for easy configuration• High availability by design during upgrades including support for VSX Live Upgrade with LACP traffic draining <p><i>See, e.g.,</i> ARUBA CX 8400 SWITCH SERIES at p. 6 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf</p>
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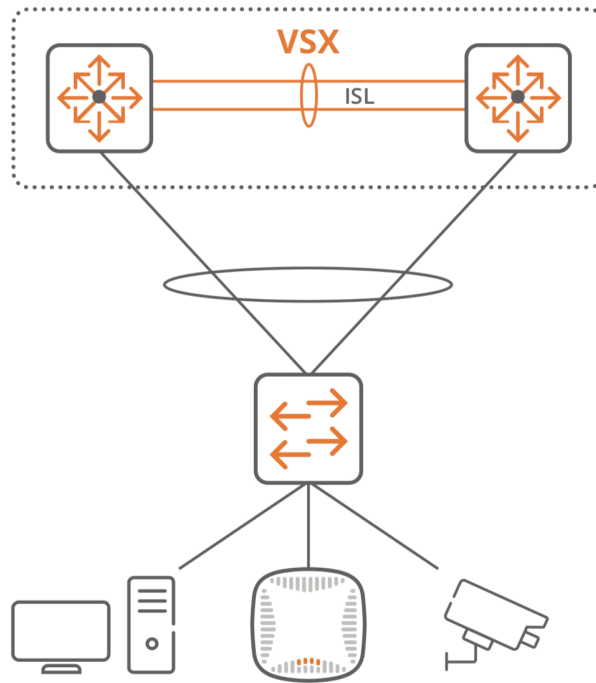
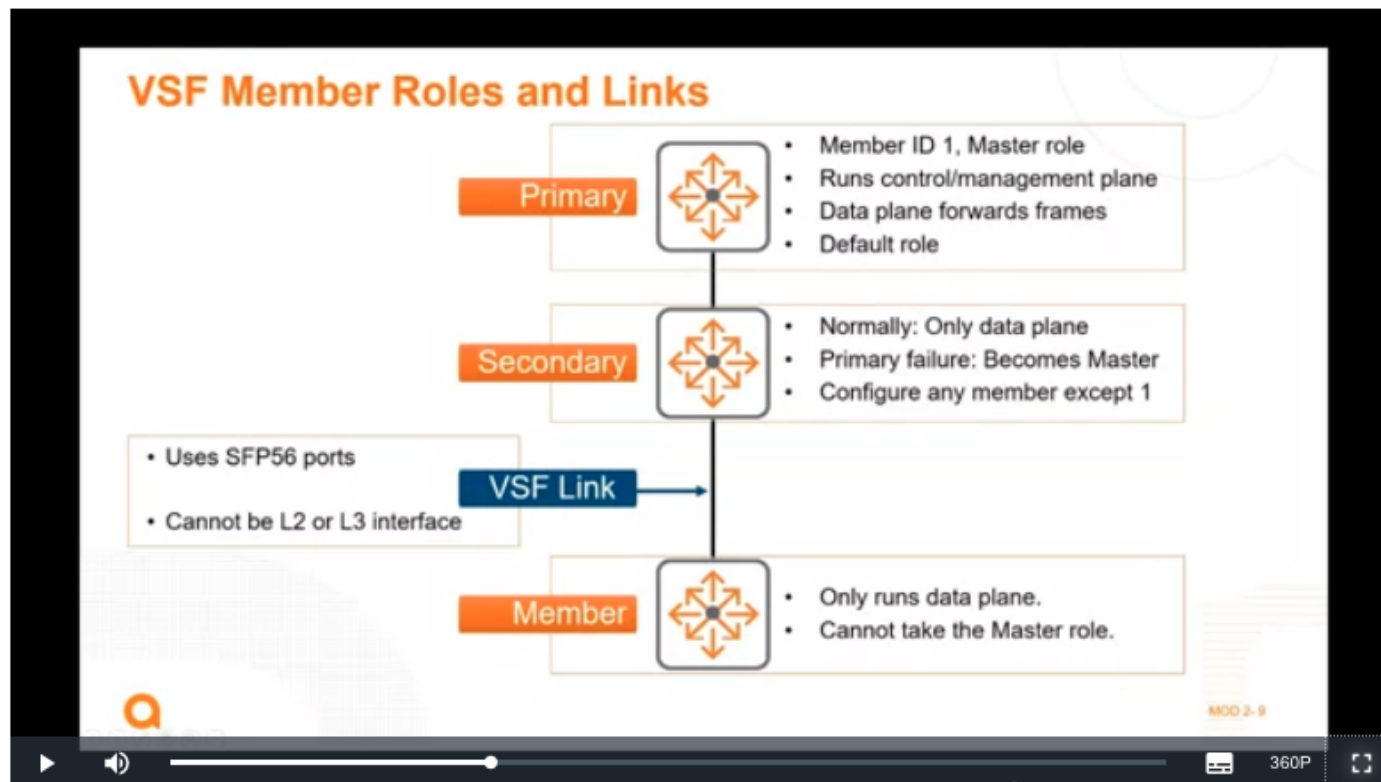


Figure 1: Aruba Virtual Switching Extension

See, e.g., High Availability From Campus to Data Center at p. 1 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf



Aruba CX Switching for Cisco Professionals

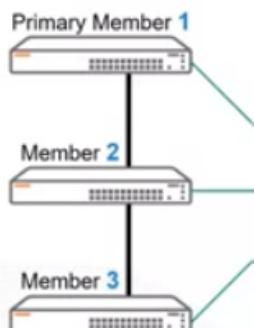
Aruba, una compañía de Hewlett Packard Enterprise

★★★★★ 4.5 (11 calificaciones) | 1.4 mil estudiantes inscritos

Inscríbete gratis

See, e.g., at 08:36 available at <https://es.coursera.org/lecture/aruba-cx-switching-for-cisco-professionals/stacking-concepts-types-805xf>

VSF member ID and Port numbers



```
Access-6300# show interface brief
```

Port	Native VLAN	Mode	Type	Enabled	Status	Speed (Mb/s)
1/1/1	1	access	SFP+DAC1	yes	up	10000
1/1/2	1	access	SFP+DAC1	yes	up	10000
...						
2/1/1	1	access	SFP+DAC1	yes	up	10000
2/1/2	1	access	SFP+DAC1	yes	up	10000
...						
3/1/1	1	access	SFP+DAC1	yes	up	10000
3/1/2	1	access	SFP+DAC1	yes	up	10000

MOD 2-13



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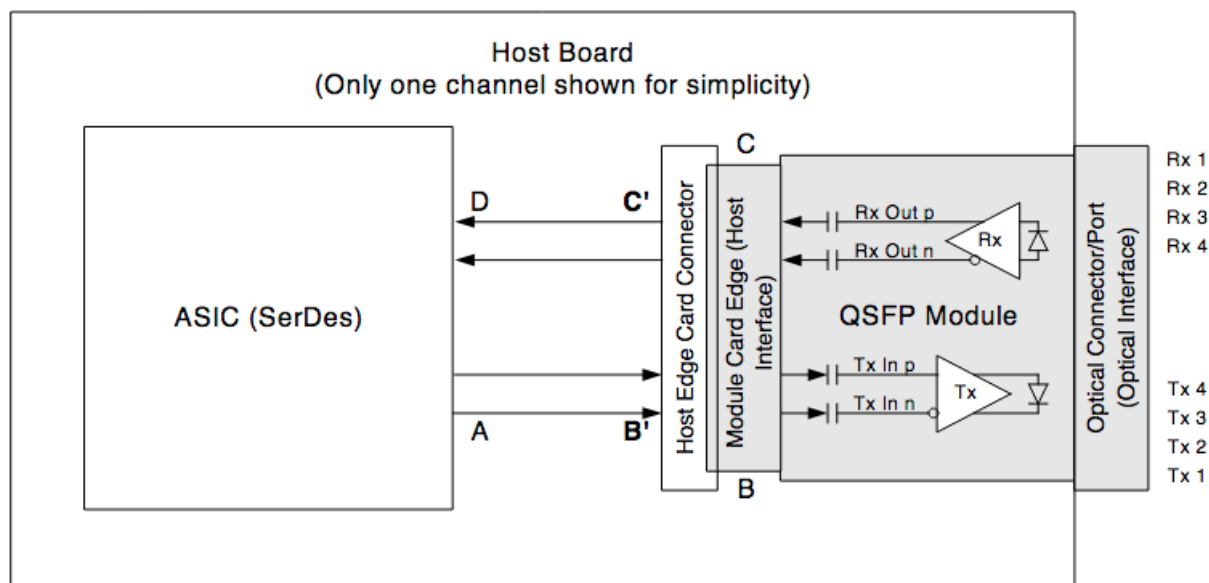
VSF

Virtual Switching Framework (VSF) technology virtualizes multiple physical devices into one virtual fabric which provides high availability because of the significant reduction in recovery time simplified network design and management. VSF is ideal for campus access. VSF lets supported switches connected to each other through Ethernet connections (copper or fiber) to behave like a single chassis switch.

See, e.g., AOS-CX 10.07 Virtual Switching Extension (VSX) Guide at p. 13 available at <https://www.arubanetworks.com/techdocs/AOS-CX/10.07/PDF/5200-7888.pdf>

An Application Reference Model, see Figure 1, shows the high-speed data interface between an ASIC (SerDes) and the QSFP module. Only one data channel of the interface is shown for simplicity.

Figure 1 — Application Reference Model

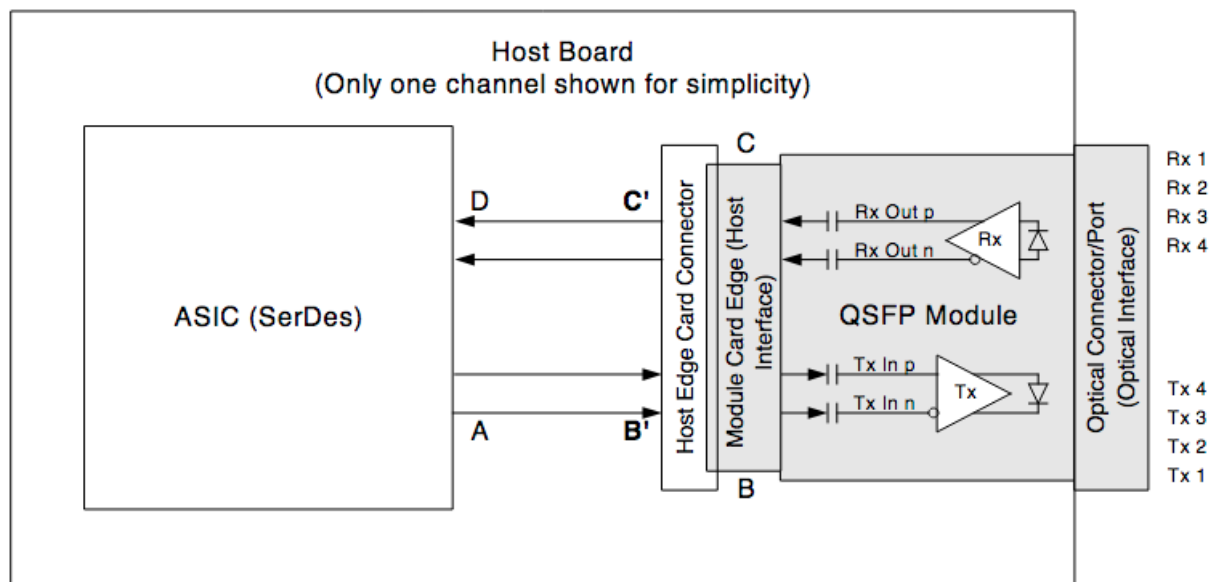


See, e.g., SFF-8436 QSFP+ was developed to update this specification at p. 13 available at <https://www.gigalight.com/downloads/standards/QSFP-MSA.pdf>

	<p>Abstract: This specification defines a 28 Gb/s QSFP+ pluggable transceiver solution popularly known as QSFP28. It gathers the appropriate/unique Base Electrical, Optical, Common Management, Module/Plug Formfactor, Host connector and cage specifications into a clearly delineated solution for users.</p> <p><i>See, e.g.,</i> QSFP+ 28 Gb/s 4X Pluggable Transceiver Solution (QSFP28) at p. 1 available at https://members.snia.org/document/dl/25963</p> <p>Abstract: This specification defines the mechanical specifications and general performance requirements of the 28 Gbs 0.8mm connector that is designed for use in high speed serial interconnect applications. One such use is as the 28 Gbs QSFP+ host receptacle mated to 28 Gbs QSFP+ modules or cables.</p> <p><i>See, e.g.,</i> Specification for QSFP+ 4X 28 Gb/s Connector (Style B) at p. 1.</p>
<p>28. The communications infrastructure of claim 27, wherein said interconnection further comprises a high bandwidth interconnection medium.</p>	<p>CX 8400 includes the communications infrastructure as recited in claim 27, wherein said interconnection further comprises a high bandwidth interconnection medium.</p> <p>Line modules and slots</p> <ul style="list-style-type: none"> • Supports a maximum of 256 10GbE (SFP/SFP+) or 25G (SFP/SFP+/SFP28) ports, or 64 40GbE (QSFP+) ports, or 48 ports 40/100GbE (QSFP28) combination • Eight slots for line modules <p><i>See, e.g.,</i> ARUBA CX 8400 SWITCH SERIES at p. 6 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf</p>

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[31pre] A method, comprising:	<p>CX 8400 performs a method of communication between separate signal processing circuits.</p> <p>The 8400 provides carrier class high availability with industry-leading line rate 10GbE/25GbE/40GbE/100GbE connectivity in a compact 8 slot chassis. It provides up to 19.2 Tbps of switching capacity based on a fully resilient design that includes redundant fabric, management, power and fans to create a resilient, highly available network that is ideal for the most demanding campus core and data center networks.</p>

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- High performance 19.2 terabits per second switching (1.2Tbps/slot) capacity
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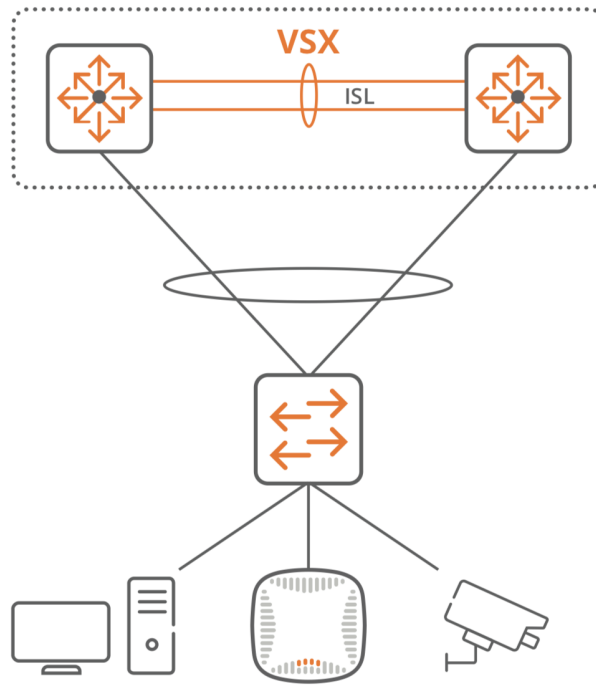


Figure 1: Aruba Virtual Switching Extension

See, e.g., High Availability From Campus to Data Center at p. 1 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf

	<p>High availability and redundancy are delivered by enabling VSX on two switches. Each switch then maintains its independent control plane, yet stays synchronized with the other for important information like MAC and ARP addresses. This enables a redundant, loop-free topology that does not require spanning tree protocol (STP). VSX is also compatible with multi-spanning tree protocol (MSTP) and rapid per-VLAN spanning tree (RPVST+), offering flexible design options for organizations using traditional spanning tree.</p> <p><i>See, e.g.,</i> High Availability From Campus to Data Center at p. 2 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf</p>
<p>[31a] providing two or more separate signal processing circuits, each one of said two or more signal processing circuits including multiple ASIC devices that each itself</p>	<p>CX 8400 provides two or more separate signal processing circuits, each one of said two or more signal processing circuits including multiple ASIC devices that each itself includes a packet router, said packet router of each one of said ASIC devices of each given one of said respective two or more signal processing circuits being coupled through respective first and second common interfaces and an intervening high speed serial optical link to a respective packet router of each of the other ASIC devices of each other of said two or more signal processing circuits with no other processing device intervening between the high speed serial optical link and said ASIC devices of each of said two or more signal processing circuits.</p> <p><i>See, e.g.,</i> supra claim elements [27a], [27b], and [27c].</p>

includes a packet router, said packet router of each one of said ASIC devices of each given one of said respective two or more signal processing circuits being coupled through respective first and second common interfaces and an intervening high speed serial optical link to a respective packet router of each of the other ASIC devices of each other of said two or more signal processing circuits with no other processing device	
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<p>intervening between the high speed serial optical link and said ASIC devices of each of said two or more signal processing circuits, and</p>	
<p>[31b] selectively transferring at least one data packet from each said packet router of each one of said ASIC devices of each given one of said respective two or more signal processing circuits to each respective packet router of said at ASIC devices of each of the other of said two or more signal</p>	<p>CX 8400 selectively transfers at least one data packet from each said packet router of each one of said ASIC devices of each given one of said respective two or more signal processing circuits to each respective packet router of said at ASIC devices of each of the other of said two or more signal processing circuits through said first and second common interfaces and said intervening high speed serial optical link without routing said data through any other intervening processing device between each respective ASIC device and the high speed serial optical link.</p> <p>Planning for high availability of campus and data center switches involves complex tasks for addressing backup and failover processing. This includes copying and accessing the real-time networking state, including routing and forwarding tables.</p> <p>See, e.g., High Availability From Campus to Data Center at p. 1 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf</p>

processing circuits through said first and second common interfaces and said intervening high speed serial optical link without routing said data through any other intervening processing device between each respective ASIC device and the high speed serial optical link.

Compared to rigid, legacy operating systems, AOS-CX provides intelligent synchronization across the network to ensure that configurations are always applied identically to both members of the VSX pair. Moreover, the Aruba Network Analytics Engine (NAE) constantly gathers real-time data on the availability state of the switches to provide HA health information to the network operator. Using these analytics, operators can ensure that any anomalous events are quickly diagnosed and resolved.

See, e.g., High Availability From Campus to Data Center at p. 2 available at https://www.arubanetworks.com/assets/tg/TB_VSX.pdf

The ability of AOS-CX to maintain synchronous state across dual control planes allows a simplified carrier-class high availability solution called Aruba Virtual Switching Extension (VSX). Designed using the best features of existing high availability technologies such as Multi-chassis Link Aggregation (MC LAG), Aruba VSX enables a distributed architecture that is highly available during upgrades or control plane events. Features include:

- Continuous configuration synchronization via AOS-CX
- Flexible active-active network designs at Layers 2 and 3
- Operational simplicity and usability for easy configuration
- High availability by design during upgrades including support for VSX Live Upgrade with LACP traffic draining

See, e.g., ARUBA CX 8400 SWITCH SERIES at p. 6 available at https://www.arubanetworks.com/assets/ds/DS_8400Series.pdf

Line modules and slots

- Supports a maximum of 256 10GbE (SFP/SFP+) or 25G (SFP/SFP+/SFP28) ports, or 64 40GbE (QSFP+) ports, or 48 ports 40/100GbE (QSFP28) combination
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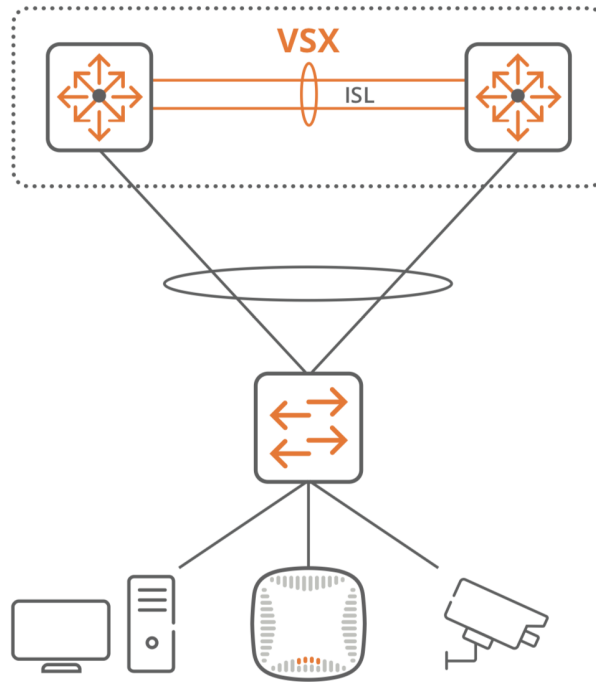
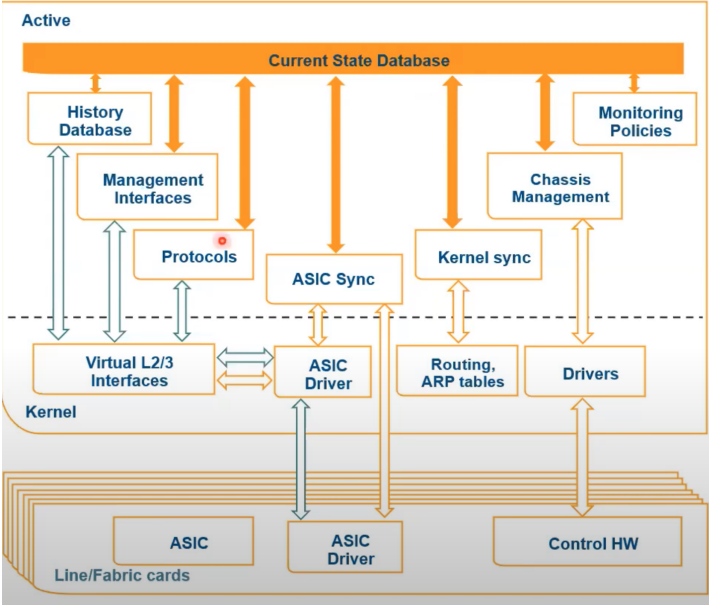


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	<h3 style="text-align: center;">Aruba CX 8400 Switch</h3> <h4 style="text-align: center;">AOS-CX Current State Database</h4>  <ul style="list-style-type: none"> • The entire current state of the system is in the DB <ul style="list-style-type: none"> • Configuration • Current status of all features • Statistics • Internal state • Agents of the system do not interact with each other agents outside of the DB. • Almost all logic runs on Active MM • Active agents don't know that standby exists • Current state database synchronizes continuously to standby • Full visibility – everything is in one place • Full programmability – everything is modeled • Resiliency – agent that fails resyncs from the DB • High availability – easy to sync to standby MM <p>See, e.g., https://www.youtube.com/watch?v=UF5b2o5o6RE</p>
<p>33. The method of claim 31, wherein said interconnection further comprises a high bandwidth interconnection medium.</p>	<p>CX 8400 performs the method as recited in claim 31, wherein said interconnection further comprises a high bandwidth interconnection medium.</p> <p>See, e.g., supra claim [28].</p>